REMARKS

The outstanding issues in the instant application are as follows:

- Claims 1, 5, 8, 11, 15-18, 26, 29-30, 34, 39, 42, 46 and 48 are rejected under 35 U.S.C. § 102(e).

- Claims 2-4, 6-7, 9,10, 12-14, 19, 20, 21-22, 23-24, 25, 27-28, 31-32, 33, 35, 26-28, 40, 41, 43-45, and 47 are rejected under 35 U.S.C. § 103(a).

Applicant hereby traverses the outstanding rejections, and requests reconsideration and withdrawal in light of the amendments and remarks contained herein. Claims 1-48 are pending in this application.

AMENDMENTS

Claim 11 was amended to correct a typographical error. Claim 11, as amended, now reads "said data channel" instead of "said out-of-band channel." Support for this amendment can be found in claims 1-10 and throughout the Specification. No new matter was added. Furthermore, the amendment does not narrow the scope of the claimed limitation, nor was Applicants' intent to so narrow.

Claim 29 was amended to more accurately reflect the method of the current invention. Claim 29, as amended now requires, "... wherein a signal energy of said first signal is substantially less than a signal energy of said second energy." Support for this amendment can be found in the original claims and throughout the Specification, for example, at paragraphs [0005] – [0006], [0008], and the like. No new matter was added.

REJECTIONS UNDER 35 U.S.C. § 102(e)

Claims 1, 5, 8, 11, 15-18, 26, 29-30, 34, 39, 42, 46 and 48 are rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,625,222 to Bertonis et al, (hereinafter *Bertonis*). Applicants respectfully traverse the rejection and assert that the claims are allowable, at least, for the reasons stated below.

In order for a claim to properly stand rejected under 35 U.S.C. § 102, the reference must teach every element of the claimed invention. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. 2131, citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." M.P.E.P. 2131, citing *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 1236 (Fed. Cir. 1989).

A. Claims 1, 5, 8, 11, 15, 16, 34, 46, and 48

Claims 1, 34 and 46 each require a "data channel." Specifically, claim 1 requires, "an input interface for accepting said data channel." Claim 34 requires, "mixing said filtered signal stream using an image reject mixer to provide a frequency converted said data channel." Claim 46 requires a "method for providing tuning of a forward data channel" and "mixing said filtered signal stream using an image reject mixer to provide a frequency converted said forward data channel." *Bertonis* does not teach a device for use with a "data channel" as that term is commonly used in the art and specifically used by Applicants. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) ("the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention"), *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (explaining that the Applicant may be his own lexicographer). The common meaning of the term "data channel," as known to those skilled in the art, in this context, is a channel of signals that are typically out-of-band of the actual data signal. Further, Applicants have used "data channel" with reasonable clarity, deliberateness, and precision in the Specification consistent with this common meaning. Specification, ¶s [0004], [0012], and [0030].

Bertonis teaches a device for use with "upstream data", and more specifically, a device for providing high-speed wireless upstream data transmission using a cable-compatible modem. *See Bertonis*, Abstract. Moreover, *Bertonis* teaches that its system "uses widely-separated frequency channels for upstream and downstream transmission." Col. 2, lns 55-57. Thus, *Bertonis* simply teaches a device for transmitting payload data upstream in a cable-compatible system. Transmitting payload data is transmitting "in-band" data and is not

the same as signals transmitted via a "data channel." Therefore, *Bertonis* does not teach or even suggest each limitation of the claimed invention. Applicants, thus, assert that claims 1, 34, and 46 are patentable over the 35 U.S.C. § 102(e) rejection of record and respectfully request the Examiner withdraw same.

Dependant claims 5, 8, 11, 15-16, and 48 each depend from claims 1 and 46, respectively, and, thus, inherit all the limitations of their independent claims. Therefore, based on that dependence, Applicants respectfully submit that claims 5, 8, 11, 15-16, and 48 are allowable, at least, for the reasons discussed above.

B. Claims 17, 18, 29, 30, 39, and 42

Claims 17, 29 (as amended), and 39 require a specific signal energy relation between the signals of interest. Claim 17 requires, "wherein a signal energy of said particular signal is substantially less than said additional signal energy." Claim 29, as amended, requires, "wherein a signal energy of said first signal is substantially less than a signal energy of said second signal." Claim 39 requires, "wherein said image frequency signal as provided to said tuner is substantially greater in magnitude than said signal of interest." *Bertonis* does not mention any difference or relation between in signal energy or amplitude of any signal components that it discusses. At most, *Bertonis* discusses, as cited by the Examiner, that the Multichannel Multipoint Distribution Service (MMDS) is not satisfactory because its wireless cable specification uses standard television frequency spacing of 6 MHz. Col. 2, lns 5-8. However, close frequency spacing does not teach or even suggest anything about signal energy or amplitude of one signal having some relation to the signal energy of amplitude of another signal. Therefore, *Bertonis* does not teach or even suggest each limitation of the claimed invention. Applicants, thus, assert that claims 17, 29, and 39 are patentable over the 35 U.S.C. § 102(e) rejection of record and respectfully request the Examiner withdraw same.

Dependant claims 18, 30, and 42 each depend from claims 17, 29, and 39 and thus inherit all the limitation s of that independent claim. Therefore, the Applicants respectfully submit that claims 18, 30, and 42 are allowable, at least, for the reasons discussed above.

According, Applicants respectfully request withdrawal of the 35 U.S.C. § 102 rejection of claims 1, 5, 8, 11, 15-18, 26, 29-30, 34, 39, 42, 46 and 48.

II. REJECTIONS UNDER 35 U.S.C. § 103(a)

Claims 2-4, 6-7, 9,10, 12-14, 19, 20, 21-22, 23-24, 25, 27-28, 31-32, 33, 35, 26-28, 40, 41, 43-45, and 47 are rejected as being unpatentable over *Bertonis* in view of various combinations of Applicants own alleged admittance, U.S. Patent No. 6,674,409 to Cheah (hereinafter *Cheah*), and U.S. Patent No. 6,681,103 to Rogers et al., (hereinafter *Rogers*).

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the references' teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. Applicant asserts that the rejection does not satisfy the basic criteria.

A. Lack of All Claimed Limitations

1. Claims 2-4, 12-14, 23-24, 27-28, 33, 36-38, 40, and 43-45

As discussed above, *Bertonis* does not teach at least one element of independent claims 1, 17, 29 as amended, 34, and 39. Specifically, *Bertonis* does not teach the "data channel" limitation of claims 1 and 34 nor the signal energy or amplitude differential of claims 17, 29 as amended, and 39. Neither the alleged admission of Applicants nor *Cheah*, teach or suggest such deficiencies in *Bertonis*. Therefore, the combination of *Bertonis* with the alleged admission, or *Cheah* does not teach or suggest each of the claim limitations. As such, claims 2-4, 12-14, 23-24, 27-28, 33, 36-38, 40, and 43-45, through their dependence from claims 1, 17, 29 as amended, 34, and 39, are patentable over the Examiner's 35 U.S.C. § 103(a) rejection of record. Applicants, thus, respectfully request that the Examiner withdraw the rejection.

Furthermore, the Examiner states that "Applicants openly admit that FCC standards have been set for signal to noise and distortion radio when operating in the MHz channel spacing." Office Action, p. 5. However, Applicants have not made such an admission. In paragraph [0006], in which the Examiner claims Applicants made such admission, Applicants stated, "Specifically, forward data channel processing circuitry operating according to the aforementioned OPENCABLE specifications must accept signals from 70 MHz up to 130 MHz and provide down-conversion thereof to result in a signal to noise and distortion ratio of at least 20 dBc." Specification, ¶ [0006]. First, the OPENCABLE specification comes from Cable Television Laboratories, Inc., and not the FCC. Additionally, Applicants do not believe that the 20 dBc signal to noise and distortion ratio obviates any signal to noise and distortion ratio between a given signal and its image signal.

2. Claims 6-7, 9-10, 19, 21-22, 25, 31-32, 35, 41, and 47

As discussed above, *Bertonis* does not teach at least one element of independent claims 1, 17, 29 as amended, 34, 39, and 46. Specifically, *Bertonis* does not teach the "data channel" limitation of claims 1, 34, and 46 nor the signal energy or amplitude differential of claims 17, 29 as amended, and 39. *Rogers* does not teach or suggest such deficiencies in *Bertonis*. Therefore, the combination of *Bertonis* with *Rogers* does not teach or suggest each of the claim limitations. As such, claims 6-7, 9-10, 19, 21-22, 25, 31-32, 35, 41, and 47, through their dependence from claims 1, 17, 29 as amended, 34, 39, and 46, are patentable over the Examiner's 35 U.S.C. § 103(a) rejection of record. Therefore, Applicants respectfully request that the Examiner withdraw the rejection.

3. Claim 20

As discussed above, *Bertonis* does not teach at least one element of independent claim 17. Specifically, *Bertonis* does not teach the signal energy differential of claim 17. Neither *Rogers*, nor *Cheah*, nor the alleged admission teach or suggest such deficiencies in *Bertonis*. Therefore, the combination of *Bertonis* with *Rogers*, *Cheah*, or the alleged admission does not teach or suggest each of the claim limitations. As such, claim 20, through its dependence from claim 17, are patentable over the Examiner's 35 U.S.C. § 103(a) rejection of record. Therefore, Applicants respectfully request that the Examiner withdraw the rejection.

Moreover, Applicants do not believe that the 20 dBc signal to noise and distortion ratio of the OPENCABLE standard obviates any signal to noise and distortion ratio between a given signal and its image signal.

In view of the above, the Applicants believe the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 49581/P028US/10103789 from which the undersigned is authorized to draw.

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Respectfully submitted,

By _____

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